

We Claim:

1. A device for monitoring an output power of a radio, the device comprising:

at least one radio-frequency module for converting baseband transmission signals having signal amplitudes to radio-frequency signals and for amplifying said radio-frequency signals, said radio-frequency module including a power amplifier having a controllable gain;

a scaling unit for varying said signal amplitudes of said baseband transmission signals; and

a controller for synchronizing said varying of said signal amplitudes of said baseband transmission signals by said scaling unit with a variation of said gain of said power amplifier when raising or reducing an output power before or after transmitting a data burst.

2. The device according to claim 1, wherein:

said scaling unit includes a first multiplier for scaling a signal amplitude of a first one of said baseband transmission signals; and

said scaling unit includes a second multiplier for scaling a signal amplitude of a second one of said baseband transmission signals.

3. The device according to claim 2, further comprising:

a first signal path including a digital/analog converter and said first multiplier; and

a second signal path including a digital/analog converter and said second multiplier;

said first multiplier being a digital multiplier configured upstream of said digital/analog converter in said first signal path; and

said second multiplier being a digital multiplier configured upstream of said digital/analog converter in said second signal path.

4. The device according to claim 1, further comprising:

at least one baseband module for producing baseband transmission signals;

said scaling unit configured in said baseband module.

5. The device according to claim 1, wherein said baseband transmission signals include an in-phase signal and a quadrature signal.

6. The device according to claim 1, further comprising:

a power control device for controlling said gain of said power amplifier.

7. The device according to claim 6, wherein:

said power control device is supplied with a nominal value of a transmission power; and

said power control device readjusts said gain of said power amplifier such that an actual transmission power in each case corresponds to said nominal value of said transmission power being supplied to said power control device.

8. The device according to claim 1, further comprising:

a power measurement unit for determining an actual transmission power;

said power measurement unit evaluating a fraction of said transmission power.

9. The device according to claim 1, further comprising:

a power ramp generator for producing continuous switching-on and switching-off ramps for a nominal value of a transmission power;

said power control device being supplied with said nominal value of said transmission power; and

said power control device readjusting said gain of said power amplifier such that an actual transmission power corresponds to said nominal value of said transmission power being supplied to said power control device.

10. The device according to claim 9, further comprising:

at least one baseband module for producing baseband transmission signals;

said scaling unit configured in said baseband module; and

said power ramp generator configured in said baseband module.

11. The device according to claim 1, wherein:

said scaling unit includes a memory for storing a sequence of rising or falling amplitude values; and

said sequence of amplitude values produces a rising or falling profile for said signal amplitudes of said baseband transmission signals.

12. The device according to claim 11, wherein:

said scaling unit is configured for obtaining trigger signals for initiating said rising or falling profile for said signal amplitudes of said baseband transmission signals.

13. The device according to claim 11, wherein:

during a switching-on ramp, said scaling unit obtains a trigger signal at a chosen time interval after a beginning of the switching-on ramp; and

during a switching-off ramp, said scaling unit obtains a trigger signal at a chosen time interval after a beginning of the switching-off ramp.

14. A mobile radio station including a device for monitoring an output power of a radio, the device comprising:

at least one radio-frequency module for converting baseband transmission signals having signal amplitudes to radio-frequency signals and for amplifying said radio-frequency signals, said radio-frequency module including a power amplifier having a controllable gain;

a scaling unit for varying said signal amplitudes of said baseband transmission signals; and

a controller for synchronizing said varying of said signal amplitudes of said baseband transmission signals by said scaling unit with a variation of said gain of said power amplifier when raising or reducing an output power before or after transmitting a data burst.

15. The mobile radio station according to claim 14, wherein said data burst is transmitted in accordance with at least one standard selected from a group consisting of GSM, EDGE, TIA-/EIA-136, UTRA-TDD, and UMTS.

16. A method for raising a transmission power of a radio having at least one radio-frequency module for converting baseband transmission signals to radio-frequency band signals

and a power amplifier with a controllable gain for amplifying the radio-frequency band signals, the method which comprises, prior to transmitting a data burst:

applying a switching-on ramp to a power control device to raise the gain of the power amplifier and thereby increase a transmission power; and

starting at a defined time on the switching-on ramp, continuously increasing amplitudes of the baseband transmission signals from a minimum value to a maximum value while the switching-on ramp is simultaneously increasing.

17. The method according to claim 16, which further comprises: performing the applying and the starting step in a mobile radio.

18. A method for reducing a transmission power of a radio having at least one radio-frequency module for converting baseband transmission signals to radio-frequency band signals and a power amplifier with a controllable gain for amplifying the radio-frequency band signals, the method which comprises, prior to transmitting a data burst:

applying a switching-off ramp to a power control device to decrease the gain of the power amplifier and thereby decrease a transmission power; and

starting at a defined time on the switching-off ramp, continuously reducing amplitudes of the baseband transmission signals from a maximum value to a minimum value while the switching-off ramp is simultaneously decreasing.

19. The method according to claim 18, which further comprises: performing the applying and the starting step in a mobile radio.